

Remarks

Claims 1-27 are pending in this application, and stand finally rejected pursuant to the Examiner's Office Action dated 2/12/92. Applicants request the Examiner reconsider the rejection of these Claims 1-27, based upon the following comments.

The Examiner rejected Claim 27 under 35 U.S.C. 101, stating that the claim was directed to non-statutory subject matter. The Examiner had previously rejected this claim in stating the claim could be broadly construed to cover a bare set of instructions or printed matter. Applicants amended the claim in the most recent amendment to overcome such broad reading. Applicants' computer program is now claimed to reside on a computer compatible medium, and thus does not encompass a bare set of instructions or printed matter. The Examiner maintains the rejection in the most recent office action, notwithstanding such amendment to the claim. The Examiner states that non-statutory subject matter cannot be automatically converted into statutory subject matter merely by broadly labeling the claim as an article of manufacture or by drafting the claim with token reference to something that is statutory subject matter, such as computer compatible medium. Applicants traverse as follows.

Applicant's maintain that a computer program, residing on a computer compatible medium, is a tangible good, or article of manufacture. Applicants are not 'merely labelling' the claimed subject, but include specific structural limitations (medium) as a part of the claim. It is improper for the Examiner to ignore specific claim limitations and then broadly interpret a claim as being non-statutory. The explicit claim language clearly shows that the claimed invention is an article of manufacture.

Articles of manufacture are explicitly listed as being statutory subject matter. Applicants are entitled to a patent of this Claim 27 under 35 U.S.C. 101 as a matter of statutory right. As the Examiner has cited no judicial exception under 35 U.S.C. 101 to substantiate the rejection of this claim, as amended on 10/21/91, the claim has been erroneously rejected.

The Examiner rejected Claims 1-27 under 35 U.S.C. 103 as being unpatentable over Beck et al. The Examiner states that Beck teaches "interface object", "dynamically associating", and "based upon the data". The Examiner further states that the graphical representations of objects taught by Beck could be construed as interface objects, and that "dynamically associating" could be reasonably be interpreted as a mere frame response to a user selected object.

Besides specific showings below with respect to the individual claims, Applicants maintain that the Examiner has erred in rejecting these claims as a matter of law. First, the Examiner has failed to make a prima facie showing of obviousness. Secondly, the Examiner has failed to show a suggestion or motivation in the cited reference to substantiate the Examiner's assertion of obviousness.

A proper analysis of claims under 35 U.S.C. 103 begins with the question of whether the prior art made obvious the invention as a whole. Hartness International Inc. v. Simplimatic Engineering Co., 819 F.2d 1100, 1108, 2 USPQ2d 1826, 1832 (Fed. Cir. 1987). To aid in determining obviousness, inquiry must be made as to (1) the scope and content of the prior art, (2) the differences between the prior art and the claims at issue; (3) the level or ordinary skill in the art; and (4) so-called "secondary considerations", such as commercial success, long-felt need,

or unexpected results. Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

Applicants now show that Claim 1 would not be obvious in view of Beck. Notwithstanding the broad claim interpretation being made by the Examiner, Beck fails to disclose the 'dynamic association ... based upon data within ... said interface objects' which is being claimed by Applicants, and which is in fact a key portion of the claimed invention. Beck fails to teach the use of data contained within an object to dynamically 'create a frame response to a user selected object'. Applicants claimed objects are active, allowing for dynamic association based upon data contained within the object. Beck's graphical representations are passive, and merely depict a transmitted and receiving object. Applicants have requested that the Examiner explicitly show where Beck teaches using data within an object to dynamically generate a 'frame response to a user selected object'. The Examiner has failed to comply. Applicants respectfully ask the Examiner to submit an affidavit pursuant to MPEP 706.02(a) if the Examiner is substantiating such assertion based on personal knowledge. Otherwise, Applicants request the Examiner to provide other competent evidence to substantiate the claim of obviousness in view of Beck, as the Examiner has failed to make a prima facie showing of obviousness. A key component of the claimed invention is not disclosed by Beck, nor has the Examiner so alleged. The invention would not have been obvious in light of the prior art because the considered reference does not disclose or suggest this feature of Claim 1. The very difference between the claim and the considered art is this critical feature. Thus, a person of ordinary skill in the art would have no teaching or suggestion in the references of

Applicants' claimed invention. Symbol Technologies Inc. v. Opticon Inc., 19 USPQ 1241, 1247 (Fed. Cir. 1991). The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification. In re Mills, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990).

Applicants further show that their claimed invention is not obvious in view of Beck. The Beck system, when triggered by a message transmission, displays representations of objects comprising a box with labels identifying the represented object (Beck Col. 3, lines 2-6). There is no suggestion or teaching in Beck of using data within the object itself to aid, assist, or be used in conjunction with the dynamic association of objects with the screen representation. If Beck has any dynamic association at all, it is the use of messages to invoke screen representations of objects. These Beck messages are not contained within the objects to be displayed by a screen representation. Rather, the messages are used to convey information between objects.

To reiterate, Applicants are claiming the use of data within the object to dynamically associate objects with frame presentations. This provides greater extendibility and flexibility in adding objects and corresponding screen representations for such objects, as the interface objects can be added or deleted to the system independently of one another. Recompilation of the menu tool is not necessary when adding or deleting objects. This flexibility simply does not exist in the teachings of Beck.

Claims 2-25 are similarly allowable, as they contain all the limitations of Claim 1 which has been shown to be allowable in view of Beck. However, notwithstanding the above,

Applicants will further show how these claims are allowable in view of Beck.

The Examiner rejected Claim 2 in stating that Beck can reasonably be interpreted to teach the use of "attributes of system resources". The Examiner has failed to show where Beck discusses or teaches representing attributes of system resources as claimed by Applicants. Beck's objects do not represent the particular attributes of system resources. Thus, Claim 2 was improperly rejected, as a prima facie case for obviousness has not been made.

Next, the Examiner maintains the rejection of Claim 3, where it was previously stated by the Examiner that Beck teaches the claimed feature of representation of hierarchical relationships. Applicants have shown that any perceived hierarchical relationship of Beck is not based upon data within the object, as claimed by Applicants.

The Examiner maintains the rejection of Claim 4, which was previously rejected for reasons given in Claim 1. Applicants have shown that Beck does not teach any type of dynamic association using hierarchical data stored within an object, as is being claimed by Applicant. Beck uses messages to trigger objects, and the methods have no hierarchical data, nor are they a part of the objects themselves. Thus, Claim 4 has been improperly rejected.

The Examiner maintains the rejection of Claim 5, which was previously rejected by the Examiner stating that Beck teaches the feature of 'means for managing of a screen presentation'. Claim 5 has the limitation of managing screen presentation and a user interaction based upon data within ... interface objects. Beck's graphical representations are mere passive, output elements (Beck, Col. 4, lines 26-30). No use is made of data within the objects for assistance in

the management of the screen presentation, as is being claimed by Applicants. Applicants claimed limitation of managing the screen presentation based upon data within an object is a key feature of Applicants' claimed invention. This feature provides for ease in system extensions or modifications to be made to the user interface by merely adding additional objects. The nature of the problem which persisted in the art, and the inventor's solution, are factors to be considered in determining whether the invention would have been obvious to a person of ordinary skill in the art. Northern Telecom Inc. v. Datapoint, 15 USPQ2d 1321, 1324 (Fed. Cir. 1990). Beck fails to even address the problem of flexibility in extending the user interface, much less teach a solution to the problem which Applicants have solved. Therefore, Claim 5 would not have been obvious in view of Beck, as the problems and solutions facing Beck differ from those of the Applicants. Further, there is no teaching or suggestion to modify the reference to achieve Applicants' claimed invention.

Applicants defer to the arguments regarding Claims 1 and 2 in response to the Examiner's continued rejection of Claim 6.

The Examiner maintains the rejection of Claims 7 and 8, which were previously rejected by the Examiner stating that 'instance... of ... said system resources' is so broad as to reasonably be taught by Beck. Beck nowhere teaches or discloses the claimed limitation in Claim 7 of informing a user of an availability of a system resource instance. Claim 7 further contains all the limitations of Claim 2, which has been earlier shown to be patentable, and thus Claim 7 is likewise patentable. Nor does Beck teach allowing a user to select a system resource instance, as is claimed in Claim 8.

The analysis for Claim 8 additionally follows from that of Claim 7 above, as Claim 8 is dependent upon Claim 7. Thus, Claim 8 is patentable in view of Beck.

The Examiner maintained the rejection of Claims 9-20, which were previously rejected with the Examiner's broad interpretation of "interface objects". In general, there is no teaching or suggestion in Beck of any construed interface objects containing any data within the object itself, much less using such data to perform the functions claimed in Claims 9-20. Applicants will now address each of these claims in more specificity.

Applicants claim in Claim 9 'means for utilizing a current value of said... attribute of said ... system resource for a validation of a user response'. Beck does not teach system resources having attributes, or current values of attributes being used for validation of user responses. Therefore, the limitations claimed by Applicants are patentable in view of Beck. Further, Claim 9 includes all the limitations of Claim 2, which has been shown to be patentable. Therefore, Claim 9 was improperly rejected, and should be allowed.

Applicants claim, in Claim 10, a way of constructing a command based upon an input value and an option contained within an interface object. Beck does not disclose this claimed limitation. It has no teachings of building commands based upon an option contained within an interface object. The command line invocation of Beck in no way teaches or suggests the limitations being claimed by Applicants. Beck merely displays and executes a command, but does not construct a command. Claim 10 further includes the limitation that the command construction occurs dynamically, as a result of user interaction and an interface object option. The

command is not merely static in nature, as is the Beck command(s). Thus, amended Claim 10 is allowable in view of Beck.

The Examiner maintained the rejection of Claim 11, which was previously rejected by the Examiner stating that Beck teaches means for executing a command. Beck fails to teach the execution of a command which was dynamically generated based upon an option contained within an interface object. This claimed limitation of Claim 11 provides the flexible user interface being claimed by Applicants.

The Examiner maintained the rejection of Claim 12. Beck does not teach logging commands for later execution. Beck teaches displaying a list of messages in progress. This is not what is being claimed by Applicants, who are claiming 'logging said command for later execution'. This logging is a deferral method, not a status indicating method of Beck. Thus, Claim 12 has been improperly rejected and is allowable in view of Beck.

Applicants traverse the rejection of Claims 13-17 for the reasons given in regards to Claim 1, upon which this claim is dependant upon.

Claim 18 includes the limitation of 'altering an object database from within the interface during a session of execution ... and ... reflecting said altered interface during said same session' and is nowhere taught or suggested by Beck. This is a unique capability of Applicants' claimed invention, where the underlying database can be modified in real time, without the need for system regeneration(see Specification, page 8, line 21 to page 9, line 6). Thus, Claim 18 was improperly rejected as there is no teaching or suggestion within Beck of this unique claimed feature.

Claim 19 includes the limitation of altering an interface object database by creating a new interface object. This is not the same or similar to the Beck teachings of updating a visual display, which is not an object database. There is no connection between Beck's status information being displayed, and the ability to alter an underlying object database. Therefore, Claim 19 was improperly rejected and should be allowed.

Claim 20, includes the limitation of directly entering a hierarchy of objects. There is no discussion, teaching, or suggestion of directly entering a hierarchical relationship of interface objects by Beck. Beck merely teaches a fixed hierarchy of classes, and the ability to suppress the display of intermediate messages. Therefore, Claim 20 was improperly rejected by the Examiner in view of Beck, and should be allowed.

Claim 21 was rejected by the Examiner as being obvious in view of Beck, and specifically at Col. 10, lines 1-6 of Beck. The Examiner states that Beck teaches means for displaying presentations by a plurality of graphical libraries. Applicants have analyzed the teachings pointed out by the Examiner in the Beck reference, and fail to see any teaching or suggestion for 'displaying said logical frame presentations by a plurality of graphical libraries', as is claimed by Applicants. This support for plural graphical libraries is another key feature of Applicants claimed invention, and allows for future applications to use graphical libraries which are supplied by the application, and bypass any existing graphical libraries predefined by the system. This additional degree of flexibility in the underlying system design is in no way taught or suggested by Beck. There is no teaching of a graphical library, nor is there a

teaching a supporting a plurality of graphical libraries. The Examiner states that Beck's teaching of a message-set browser is a reasonable interpretation of graphical libraries. The Examiner is apparently equating the use of multiple windows with multiple graphical libraries. As is known to those of ordinary skill in the art who would reasonable interpret the scope of the claimed element 'graphical libraries', this does not refer to the display of multiple windows, i.e. "libraries" does not mean "windows". Thus, Claim 21 was improperly rejected by the Examiner, and is allowable in view of Beck.

In Claims 22 and 23, Applicants are claiming 'means, within said interface objects, for representing...'. Beck's graphical representations have no means to do anything. They are mere output representations, and contained no information within themselves, for representing items in a logical frame in a plurality of ways depending upon a graphical or linguistic context, as is claimed by Applicants. Claims 22 and 23 have been improperly rejected and should be allowed.

Claim 24 is traversed by the reasons given in overcoming the rejection of Claim 1.

Claim 25 includes the limitation of an access control policy. No access control policy is taught or suggested by Beck. Rather, Beck merely displays a list of commands for a user to invoke, and has no means for providing any access control policies on commands available for selection. Therefore, this Claim 25 was improperly rejected and should be allowed..

Claims 26 and 27 were rejected by the Examiner for reasons substantially the same as Claim 1, and Applicants rely on the arguments made with respect to Claim 1 to traverse this rejection.

In closing, it should be emphasized that the Beck graphical representations are mere passive output indicators and have no bearing or relationship to the interface objects being claimed by Applicants. These interface objects have information contained within the objects themselves, and this information and objects are used to drive (i.e. is an active input to) a target system resource. As the functions have no bearing or relationship to one another, it would further not be obvious to modify the teachings of Beck to achieve Applicants' claimed invention.

For all the above reasons, Applicants request the Examiner to enter this amendment and withdraw the rejection of, and allow, these Claims 1-27, as all basis for rejection have been overcome. Should the Examiner fail to withdraw the rejection of these Claims, Applicants' attorney requests that a telephone interview with the Examiner be granted. Such interview can be scheduled by contacting Applicants' attorney at the number listing below.

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